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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,494	08/25/2003	Tilman Herberger	57612/03-261	2370
22206	7590	07/03/2007	EXAMINER	
FELLERS SNIDER BLANKENSHIP BAILEY & TIPPENS THE KENNEDY BUILDING 321 SOUTH BOSTON SUITE 800 TULSA, OK 74103-3318			KURR, JASON RICHARD	
ART UNIT	PAPER NUMBER		2615	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/647,494	HERBERGER ET AL.
	Examiner	Art Unit
	Jason R. Kurr	2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 April 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 11 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Cliff (US 2002/0172379 A1).

With respect to claim 1, Cliff discloses a method of generating a sound transition between a first audio work and a second audio work, wherein said first audio work is ending and said second audio work is beginning (pg.1 [0003]), and wherein there is provided a plurality of audio speakers (fig.1 #60) arrayed in a spaced-apart configuration, comprising: a. selecting a first transition pattern for said first audio work (fig.1 #30); b. selecting a second transition pattern for said second audio work (fig.1 #40), said transition patterns for said first and second audio work providing an audio transition between said first audio work and said second audio work (pg.2 [0037] ln.20-28), wherein (a1) each of said first and second audio works is played through said audio speakers according to said first and second transition patterns, thereby creating an impression of movement of said first and second audio works to a listener; c. playing said first audio work through said plurality of audio speakers according to said first transition pattern until said first audio work is no longer audible; d. playing said second

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audio work through said plurality of audio speakers according to said second transition pattern until said first audio work is no longer audible and thereafter continuing to play said second audio work through said plurality of audio speakers according to the desires of a user (pg.2,3 [0038]). It is implied that as a signal from a first audio source is faded out that is will no longer become audible to a listener and as a second signal from a second audio source is faded in that will continue to play until acted upon by an operator or until the source reaches the end of the track.

With respect to claim 2, Cliff discloses a method according to claim 1, wherein the steps of selecting said first and said second transition patterns is accomplished by selecting a master transition pattern which includes both said first and said second transition patterns therein (pg.2 [0037] ln.20-28). Cliff discloses that the variable gain amplifiers (fig.1 #30,40) which control the transition pattern between the first and second audio works can be implemented in a single "master" power amplifier known as a cross-fader. This cross-fader would provide means to select the amount of amplification "transition pattern" of the first and second audio works.

With respect to claim 11, Cliff discloses a method of transitioning between a first audio work and a second audio work, wherein said first audio work is ending and said second audio work is beginning (pg.1 [0003]), and wherein there is provided a plurality of audio speakers (fig.1 #60) arrayed in a spaced-apart configuration, comprising: a. selecting a first transition pattern (fig.1 #30) for use with said first audio work, said first transition pattern providing an audible impression of movement of said first audio work when said first audio work is played according to said first transition pattern though said

plurality of audio speakers; b. selecting a second transition pattern (fig.1 #40) for use with said second audio work, said second transition pattern providing an audible impression of movement of said second audio work when said second audio work is played according to said second transition pattern through said plurality of audio speakers, said second transition pattern being selected to be complementary to said first transition pattern (pg.2 [0037] ln.20-28); c. playing said first audio work through said plurality of audio speakers according to said first transition pattern until said first audio work is no longer audible; d. playing said second audio work through said plurality of audio speakers according to said second transition pattern until said first audio work is no longer audible and thereafter continuing to play said second audio work through said plurality of audio speakers according to the desires of a user (pg.2,3 [0038]). It is implied that as a signal from a first audio source is faded out that is will no longer become audible to a listener and as a second signal from a second audio source is faded in that will continue to play until acted upon by an operator or until the source reaches the end of the track.

With respect to claim 12, Cliff discloses a method according to claim 11, wherein the steps of selecting said first and said second transition patterns is accomplished by selecting a master transition pattern which includes both said first and said second transition patterns therein (pg.2 [0037] ln.20-28). Cliff discloses that the variable gain amplifiers (fig.1 #30,40) which control the transition pattern between the first and second audio works can be implemented in a single "master" power amplifier known as a cross-fader. This cross-fader would provide means to select the amount of

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amplification "transition pattern" of the first and second audio works.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-10 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cliff (US 2002/0172379 A1) in view of Cleary, Jr. et al (US 6,977,653 B1).

With respect to claim 4, Cliff discloses a method according to claim 1, further comprising the steps of: e. forming a graphical representation of said first transition pattern and said second transition pattern, wherein said graphical representation reflects at least approximately said impression of movement of said first and second audio works within said speakers (fig.7A,B pg.5 [0053]).

Cliff does not disclose expressly wherein the method includes displaying on a computer display device said graphical representation of said first transition pattern and said second transition pattern during the playing of said first and second audio works.

Cleary discloses a display system that displays a graphical representation of the signal levels being reproduced on left and right channel speakers (fig.1).

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At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the display device of Cleary to display the information disclosed in the graphs of figures 7A and 7B of Cliff.

The motivation for doing so would have been to provide a user with visual information pertaining to the present gain levels of the first and second audio work signals. This would allow a user such as a DJ to make a visual note of a desired fade in/out level for future uses.

With respect to claim 5, Cliff discloses a method according to claim 1, further comprising the steps of: e. forming a graphical representation of said first transition pattern (fig.7A,B pg.5 [0053]).

Cliff does not disclose expressly wherein said graphical representation has at least indicia thereon representing each of said audio speakers and displaying on a computer display device said graphical representation of said first transition pattern during the playing of said first audio work.

Cleary discloses a display system that has at least indicia thereon representing audio speakers (fig.1 #10L,10R), and displays a graphical representation of the signal levels being reproduced on left and right channel speakers (fig.1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the display device of Cleary to display the information disclosed in the graphs of figures 7A and 7B of Cliff.

The motivation for doing so would have been to provide a user with visual information pertaining to the present gain levels of the first and second audio work

signals. This would allow a user such as a DJ to make a visual note of a desired fade in/out level for future uses.

With respect to claim 6, Cliff discloses a method according to claim 5 in view of Cleary, wherein said indicia of said audio speakers are at least approximately spaced apart on said computer display device proportionally to an actual spacing of said audio speakers. Both Cliff and Cleary disclose figures containing representations of only two speakers; hence no matter how they are presented on the display they will always be proportionally spaced with respect to the actual spacing of the speakers.

With respect to claim 7, Cliff discloses a method according to claim 5 in view of Cleary, wherein step (f) comprises the step of displaying on a computer display device said graphical representation of said first transition pattern during the playing of said first audio work, wherein said display operates at least approximately in real-time and wherein said displayed graphical representation is continuously updated to reflect the operation of said first transition pattern. It is implied that the graphical display of Cleary continuously updates the information being displayed.

With respect to claim 8, Cliff discloses a method according to claim 1, further comprising the steps of: e. forming a graphical representation of said second transition pattern (fig.7A,B pg.5 [0053]).

Cliff does not disclose expressly wherein said graphical representation has at least indicia thereon representing each of said audio speakers and displaying on a computer display device said graphical representation of said first transition pattern during the playing of said first audio work.

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Cleary discloses a display system that has at least indicia thereon representing audio speakers (fig.1 #10L,10R), and displays a graphical representation of the signal levels being reproduced on left and right channel speakers (fig.1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the display device of Cleary to display the information disclosed in the graphs of figures 7A and 7B of Cliff.

The motivation for doing so would have been to provide a user with visual information pertaining to the present gain levels of the first and second audio work signals. This would allow a user such as a DJ to make a visual note of a desired fade in/out level for future uses.

With respect to claim 9, Cliff discloses a method according to claim 1, wherein at least a portion of said first transition pattern is provided by a user (pg.2 [0037] ln.20-28). It is implied that cross faders allow a DJ to manually adjust signal levels in a transition between multiple audio works.

With respect to claim 10, Cliff discloses a method according to claim 1, wherein at least a portion of said second transition pattern is provided by a user (pg.2 [0037] ln.20-28). It is implied that cross faders allow a DJ to manually adjust signal levels in a transition between multiple audio works.

With respect to claim 14, Cliff discloses a method according to claim 11, further comprising the steps of: e. forming a graphical representation of said first transition pattern, wherein said graphical representation reflects at least approximately said

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impression of movement of said first audio work within said speakers (fig.7A,B pg.5 [0053]).

Cliff does not disclose expressly wherein the method includes displaying on a computer display device said graphical representation of said first transition pattern during the playing of said first and second audio works.

Cleary discloses a display system that displays a graphical representation of the signal levels being reproduced on left and right channel speakers (fig.1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the display device of Cleary to display the information disclosed in the graphs of figures 7A and 7B of Cliff.

The motivation for doing so would have been to provide a user with visual information pertaining to the present gain levels of the first and second audio work signals. This would allow a user such as a DJ to make a visual note of a desired fade in/out level for future uses.

With respect to claim 15, Cliff discloses a method according to claim 11, further comprising the steps of: e. forming a graphical representation of said second transition pattern, wherein said graphical representation reflects at least approximately said impression of movement of said second audio work within said speakers (fig.7A,B pg.5 [0053]).

Cliff does not disclose expressly wherein the method includes displaying on a computer display device said graphical representation of said second transition pattern during the playing of said first and second audio works.

Cleary discloses a display system that displays a graphical representation of the signal levels being reproduced on left and right channel speakers (fig.1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the display device of Cleary to display the information disclosed in the graphs of figures 7A and 7B of Cliff.

The motivation for doing so would have been to provide a user with visual information pertaining to the present gain levels of the first and second audio work signals. This would allow a user such as a DJ to make a visual note of a desired fade in/out level for future uses.

With respect to claim 16, Cliff discloses a method according to claim 11, further comprising the steps of: e. forming a graphical representation of said first transition pattern (fig.7A,B pg.5 [0053]).

Cliff does not disclose expressly wherein said graphical representation has at least indicia thereon representing each of said audio speakers and displaying on a computer display device said graphical representation of said first transition pattern during the playing of said first audio work.

Cleary discloses a display system that has at least indicia thereon representing audio speakers (fig.1 #10L,10R), and displays a graphical representation of the signal levels being reproduced on left and right channel speakers (fig.1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the display device of Cleary to display the information disclosed in the graphs of figures 7A and 7B of Cliff.

The motivation for doing so would have been to provide a user with visual information pertaining to the present gain levels of the first and second audio work signals. This would allow a user such as a DJ to make a visual note of a desired fade in/out level for future uses.

With respect to claim 17, Cliff discloses a method according to claim 16 in view of Cleary, wherein said indicia of said audio speakers are at least approximately spaced apart on said computer display device proportionally to an actual spacing of said audio speakers. Both Cliff and Cleary disclose figures containing representations of only two speakers, hence no matter how they are presented on the display they will always be proportionally spaced with respect to the actual spacing of the speakers.

With respect to claim 18, Cliff discloses a method according to claim 14 in view of Cleary, wherein step (f) comprises the step of displaying on a computer display device said graphical representation of said first transition pattern during the playing of said first audio work, wherein said display operates at least approximately in real-time and wherein said displayed graphical representation is continuously updated to reflect the operation of said first transition pattern. It is implied that the graphical display of Cleary continuously updates the information being displayed.

With respect to claim 19, Cliff discloses a method according to claim 11, wherein at least a portion of said first transition pattern is provided by a user (pg.2 [0037] ln.20-28). It is implied that cross faders allow a DJ to manually adjust signal levels in a transition between multiple audio works.

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With respect to claim 20, Cliff discloses a method according to claim 11, wherein at least a portion of said second transition pattern is provided by a user (pg.2 [0037] In.20-28). It is implied that cross faders allow a DJ to manually adjust signal levels in a transition between multiple audio works.

Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cliff (US 2002/0172379 A1) as applied to claim 1 above, and further in view of Clemow (US 6,577,736 B1) and Raydon et al (US 3,969,588).

With respect to claim 3, Cliff discloses a method according to claim 1, however does not disclose expressly wherein said first transition pattern is selected from a group consisting of: (a1) a front-to-back transition pattern, (a2) a left side to right side transition pattern, or, (a3) a circling transition pattern.

Clemow discloses a system that allows different patterns of fading of an audio signal such as a front-to-back transition pattern (col.6 In.27-36) and a left side to right side transition pattern (col.3 In.40-50).

Raydon discloses a system that allows different patterns of fading of an audio signal such as a circling transition pattern (col.5 In.29-36).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the fading patterns of Clemow and Raydon in the cross fading of Cliff.

The motivation for doing so would have been to provide a dimensional effect to the transitioning of the audio works. This would provide a smooth transitional effect that would lead one audio track to the next.

With respect to claim 13, Cliff discloses a method according to claim 11, however does not disclose expressly wherein said first transition pattern is selected from a group consisting of: (a1) a front-to-back transition pattern, (a2) a left side to right side transition pattern, or, (a3) a circling transition pattern.

Clemow discloses a system that allows different patterns of fading of an audio signal such as a front-to-back transition pattern (col.6 ln.27-36) and a left side to right side transition pattern (col.3 ln.40-50).

Raydon discloses a system that allows different patterns of fading of an audio signal such as a circling transition pattern (col.5 ln.29-36).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the fading patterns of Clemow and Raydon in the cross fading of Cliff.

The motivation for doing so would have been to provide a dimensional effect to the transitioning of the audio works. This would provide a smooth transitional effect that would lead one audio track to the next.

Response to Arguments

Applicant's arguments filed April 10, 2007 have been fully considered but they are not persuasive.

With respect to the Applicant's arguments regarding claims 1-20, the Applicant continually argues that within Cliff (US 2002/0172379 A1), there is no teaching or suggestion to arrive at an audio work transition as to create the impression that there is a movement of the audio source. The Applicant continues that the word "movement" does not occur within the Cliff reference, nor does "move", "perception" or "impression." The Examiner understands that the intent of the present invention is to create a transition effect between audio works that gives a listener the impression of movement of the source of the audio work by fading the audio works between respective channels and speakers during the transition. However the present claims merely disclose, "creating an impression of movement", not how this is accomplished. The Examiner maintains the position that fading out one audio work while fading in another, as taught by Cliff, creates an impression of movement to a listener. The audio work being faded out would appear to be moving away from a listener, while the audio work being faded in would appear to be getting closer.

With respect to the Applicant's arguments regarding claim 11, the Applicant states that there is no suggestion or discussion in Cliff that two different patterns, each of which has been selected to create a complimentary sense of movement as compared with the other, might be utilized to transition between audio works. The Examiner disagrees with this assertion. Cliff clearly shows two different and complimentary transition patterns in Figures 7A-C, and discloses that these patterns can be considered separately for each audio work (pg.5 [0053]).

With respect to the Applicant's arguments regarding claim 12, the Applicant states that Cliff does not teach or suggest the use of a master transition pattern which contains two patterns therein. Cliff discloses that in an embodiment the gain controls of the amplifiers #30,40 are linked, known as a cross-fader. The functions of cross-faders are well known in the art, such that as the gain of one signal increases the gain of the other equally decreases. Therefore Cliff discloses a master gain control that controls the transition patterns of both the individual first and second transition patterns simultaneously, thus creating a master transition pattern.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the invention of Cleary discloses a display system that presents the audio levels of signals on right and left channels. Such a display would be advantageous to a user of the system of Cliff, because the user could visually monitor the audio levels of each audio work during a manual cross-fade of the works.

With respect to claim 6, the Applicant states that it is not always true that "no matter how they are presented on the display, the speakers will always be proportionally spaced with respect to the actual spacing of the speakers". The Applicant continues

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that it might be true for two speakers that are equally spaced on either side of a centered listener, that would not be the case if the speakers are asymmetrically positioned with respect to the listener, e.g. the listener is not positioned along a line that is orthogonal to – and through the mid point of – a line segment that connects the two speakers. The Examiner agrees with the Applicant that two speakers are not always proportionally spaced with respect to a listener, however the present claim discloses nothing about the position of a listener.

With respect to claims 3 and 13, the Applicant argues that Clemow and Raydon do not disclose wherein the fading techniques occur at transitions between audio works. The Examiner has not relied upon Clemow or Raydon to make up for any deficiencies in Cliff with respect to transitions occurring at the end of one audio work and at the beginning of another. These references were provided to merely show that the claimed transition effects, (a1) front-to-back (a2) left side to right side and (a3) circling, were well known at the time of the invention and it would have been obvious to use them in the transitioning of audio works as in the invention of Cliff.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Kurr whose telephone number is (571) 272-0552. The examiner can normally be reached on M-F 10:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 273-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

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